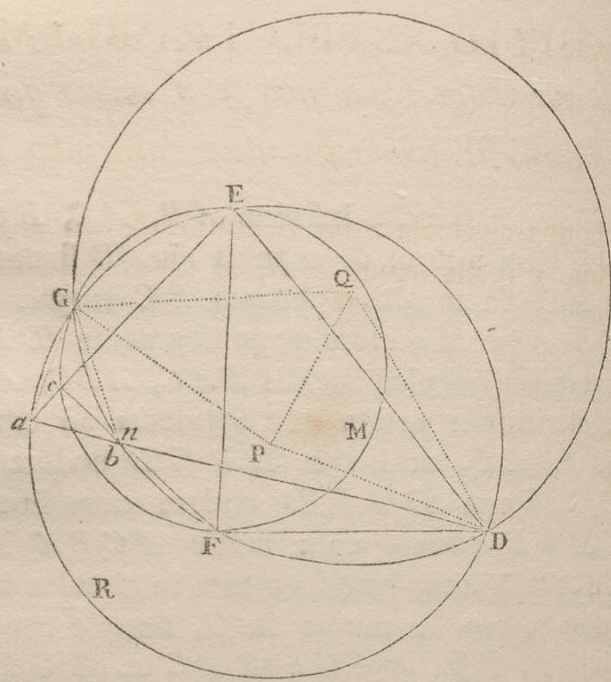
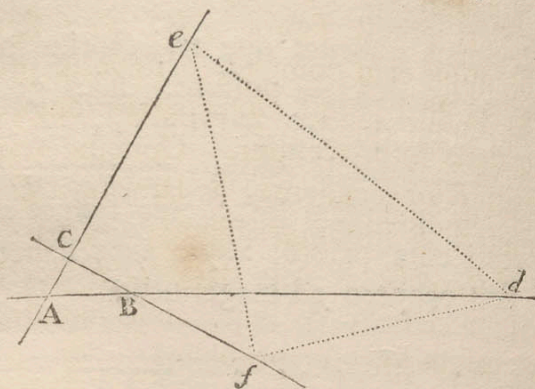


Agatur enim  $Fc$  ipsi  $aD$  occurrens in  $n$ , & jungantur  $aG$ ,  $bG$ ,  $QG$ ,  $QD$ ,  $PD$ . Ex constructione est angulus  $EaD$  æqualis angulo  $CAB$ , & angulus  $acF$  æqualis angulo  $ACB$ , ideoque triangulum  $anc$  triangulo  $ABC$  æquiangulum. Ergo angulus  $anc$  seu  $FnD$  angulo  $ABC$ , ideoque angulo  $FbD$  æqualis est; & prop-



terea punctum  $n$  incidit in punctum  $b$ . Porro angulus  $GPQ$ , qui dimidius est anguli ad centrum  $GPQ$ , æqualis est angulo ad circumferentiam  $GaD$ ; & angulus  $GQP$ , qui dimidius est anguli ad centrum  $GQD$ , æqualis est complemento ad duos rectos anguli ad circumferentiam  $GbD$ , ideoque æqualis angulo  $Gba$ ; suntque ideo

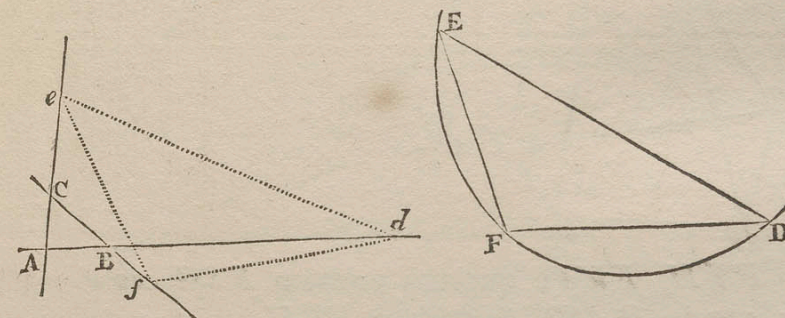
ideo triangula  $GPQ$ ,  $Gab$  similia; &  $Ga$  est ad  $ab$  ut  $GP$  ad  $PQ$ ; id est (ex constructione) ut  $Ga$  ad  $AB$ . Æquantur itaque  $ab$  &  $AB$ ; & propterea triangula  $abc$ ,  $ABC$ , quæ modo similia esse probavimus, sunt etiam æqualia. Unde, cum tangant insuper trianguli  $DEF$  anguli  $D$ ,  $E$ ,  $F$  trianguli  $abc$  latera  $ab$ ,  $ac$ ,  $bc$  respective, compleri potest figura  $ABCdef$  figuræ  $abcDEF$  similis & æqualis, atque eam complendo solvetur problema.  $Q.E.F.$

*Corol.* Hinc recta duci potest cujus partes longitudine datæ rectis tribus positione datis interjacebunt. Concipe triangulum  $DEF$ , puncto  $D$  ad latus  $EF$  accedente, & lateribus  $DE$ ,  $DF$  in directum positis, mutari in lineam rectam, cujus pars data  $DE$  rectis positione datis  $AB$ ,  $AC$ , & pars data  $DF$  rectis positione datis  $AB$ ,  $BC$  interponi debet; & applicando constructionem præcedentem ad hunc casum solvetur problema.

## PROPOSITIO XXVIII. PROBLEMA XX.

Trajectoriam specie & magnitudine datam describere, cujus partes datæ rectis tribus positione datis interjacebunt.

Describenda sit trajectoria, quæ sit similis & æqualis lineæ curvæ  $DEF$ , quæque a rectis tribus  $AB$ ,  $AC$ ,  $BC$  positione datis, in



partes datis hujus partibus  $DE$  &  $EF$  similes & æquales secabuntur.

Age rectas  $DE$ ,  $EF$ ,  $DF$ , & trianguli hujus  $DEF$  pone angulos  $D$ ,  $E$ ,  $F$  ad rectas illas positione datas (per lem. xxvi) dein circa triangulum describe trajectoriam curvæ  $DEF$  similem & æqualem.  $Q.E.F.$